

a hole formed in said light emitting element fixing substrate for mounting said light emitting element fixing substrate on said base body and said light emitting element are not arranged into a straight line.

23. The optical scanning-type touch panel as set forth in claim 20 or 22,

wherein said optical transceiver further comprises a collimation lens for changing light from said light emitting element into parallel light and a lens holder for fixing said collimation lens, and

said hole formed in said light emitting element fixing substrate has a radius larger than a radius of said mounting member by an amount of no less $\Delta d/2$ satisfying condition (A)

$$\Delta d/2 \geq (X^2 + Y^2)^{1/2} \quad (A)$$

where

$$X = (w/2 - d) \cdot \sin \theta + m + r \cdot \sin j$$

$$Y = (w/2 - d) \cdot \sin \eta + n + r \cdot \sin k$$

$$\theta = \theta_1 + \theta_2$$

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θ_1 : a tilt of said collimation lens with respect to said lens holder about an X-axis;

θ_2 : a tilt of said lens holder with respect to said base body about the X-axis;

η_1 : a tilt of said collimation lens with respect to said lens holder about a Y-axis;

η_2 : a tilt of said lens holder with respect to said base body about the Y-axis;

w: a length of said lens holder;

d: a length from a reference surface of said collimation lens to an exit-side end face of said lens holder;

r: a length from an intersection of a line normal to a reference surface of said light emitting element and a Z-axis to a light emitting point;

m: a self-deviation of the light emitting point of said light emitting element with respect to the X-axis;

n: a self-deviation of the light emitting point of said light emitting element with respect to the Y-axis;

j: a tilt of a line normal to the reference surface of said light emitting element with respect to the Z-axis about the X-axis; and

k: a tilt of the line normal to the reference surface of said light emitting element with respect to the Z-axis about the Y-axis.

24. The optical scanning-type touch panel as set forth in claim 23,

wherein said hole formed in said light emitting element fixing substrate has a diameter larger than a diameter of said mounting member by an amount between 0.4 and 0.6 mm.

25. An optical scanning-type touch panel comprising: an optical scanner for angularly scanning light in a plane substantially parallel to a predetermined region; and an optical transceiver for projecting light onto said optical

scanner and receiving part of scanning light of said optical scanner; for measuring a scanning light cut-off position, which is produced in said predetermined region by an indicator, based on a light receiving output of said optical transceiver that corresponds to a scanning angle, said optical scanning-type touch panel being characterized in that said optical scanner and said optical transceiver are mounted on a single base body as one unit, and said optical transceiver comprises a light emitting element, a collimation lens for changing light from said light emitting element into parallel light, and an aperture for limiting a size of light from said collimation lens, said aperture being formed in two or more stages.

26. The optical scanning-type touch panel as set forth in claim 25,

wherein an inner surface of said aperture does not have a mirror finish.

27. The optical scanning-type touch panel as set forth in claim 25,

wherein said aperture has an elliptical shape or a circular shape.

28. The optical scanning-type touch panel as set forth in claim 25,

wherein a section of said base body, which comes into contact with said aperture, has a reduced thickness.

29. The optical scanning-type touch panel as set forth in claim 28,

wherein the section of said base body, which comes into contact with said aperture, has a thickness of no more than 1 mm.

30. The optical scanning-type touch panel as set forth in claim 25,

wherein a size of an opening of said base body at a section to be in contact with said aperture is larger than a size of an exit of said aperture, but is smaller than a size of an entrance of said aperture.

31. The optical scanning-type touch panel as set forth in claim 25,

wherein said optical transceiver further comprises a light receiving element for receiving part of scanning light and an aperture mirror constructed by forming a mirror for guiding part of scanning light to said light receiving element and said aperture as one body.

32. The optical scanning-type touch panel as set forth in claim 31,

wherein said aperture mirror includes a pasted mirror.

33. The optical scanning-type touch panel as set forth in claim 31,

wherein positioning of said base body and said aperture mirror is implemented by a move-and-touch structure.

34. The optical scanning-type touch panel as set forth in claim 33,

wherein a touched section between said base body and said aperture mirror is provided with a clearance hole.

35. The optical scanning-type touch panel as set forth in claim 31,

wherein said aperture mirror is fixed to said base body with a detachable mounting member.